FIG. 1A

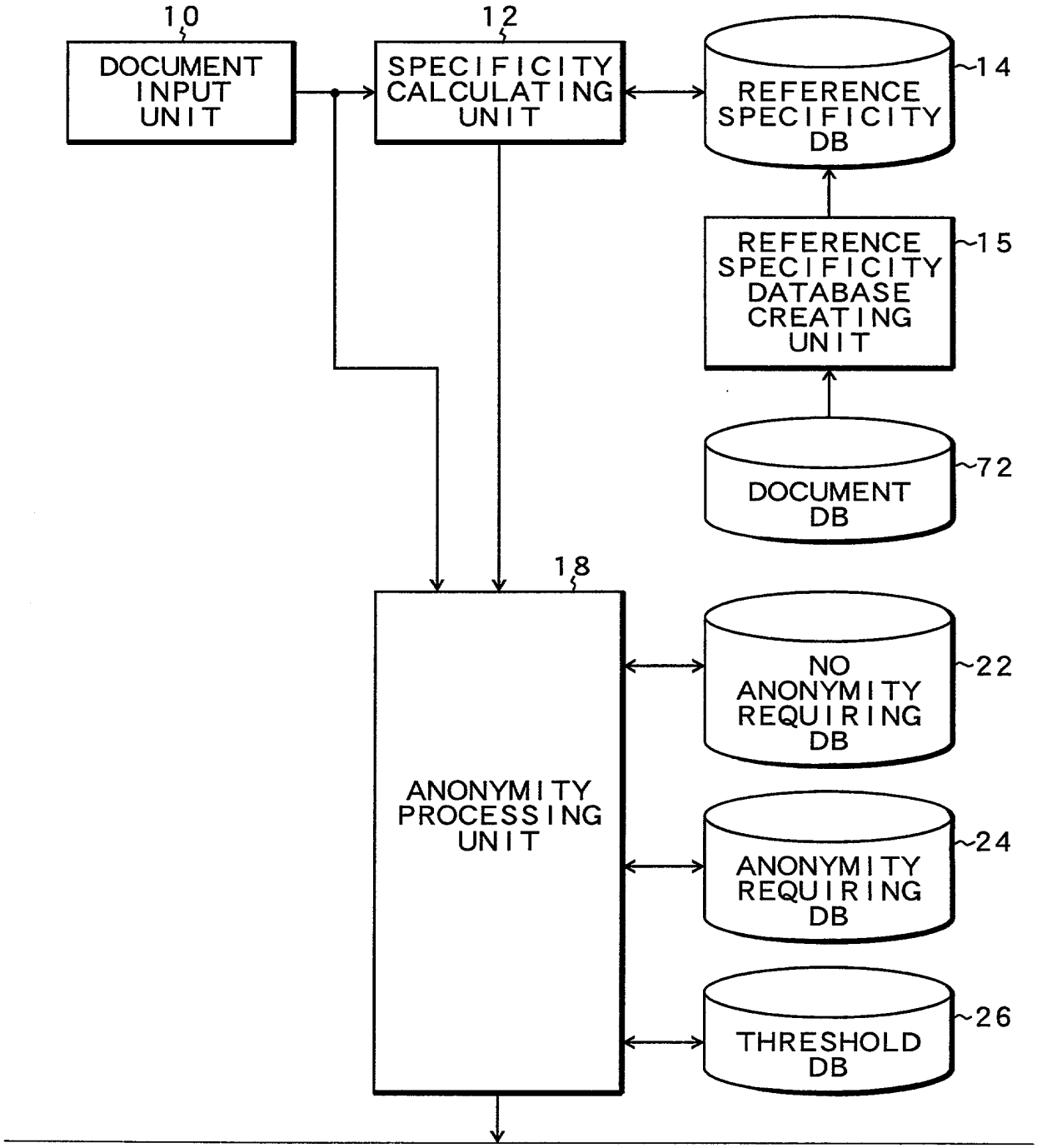

10
DOCUMENT INPUT UNIT
12
SPECIFICITY CALCULATING UNIT
REFERENCE SPECIFICITY DB
14
REFERENCE SPECIFICITY DATABASE CREATING UNIT
15
DOCUMENT DB
72
18
ANONYMITY PROCESSING UNIT
NO ANONYMITY REQUIRING DB
22
ANONYMITY REQUIRING DB
24
THRESHOLD DB
26

FIG. 1B

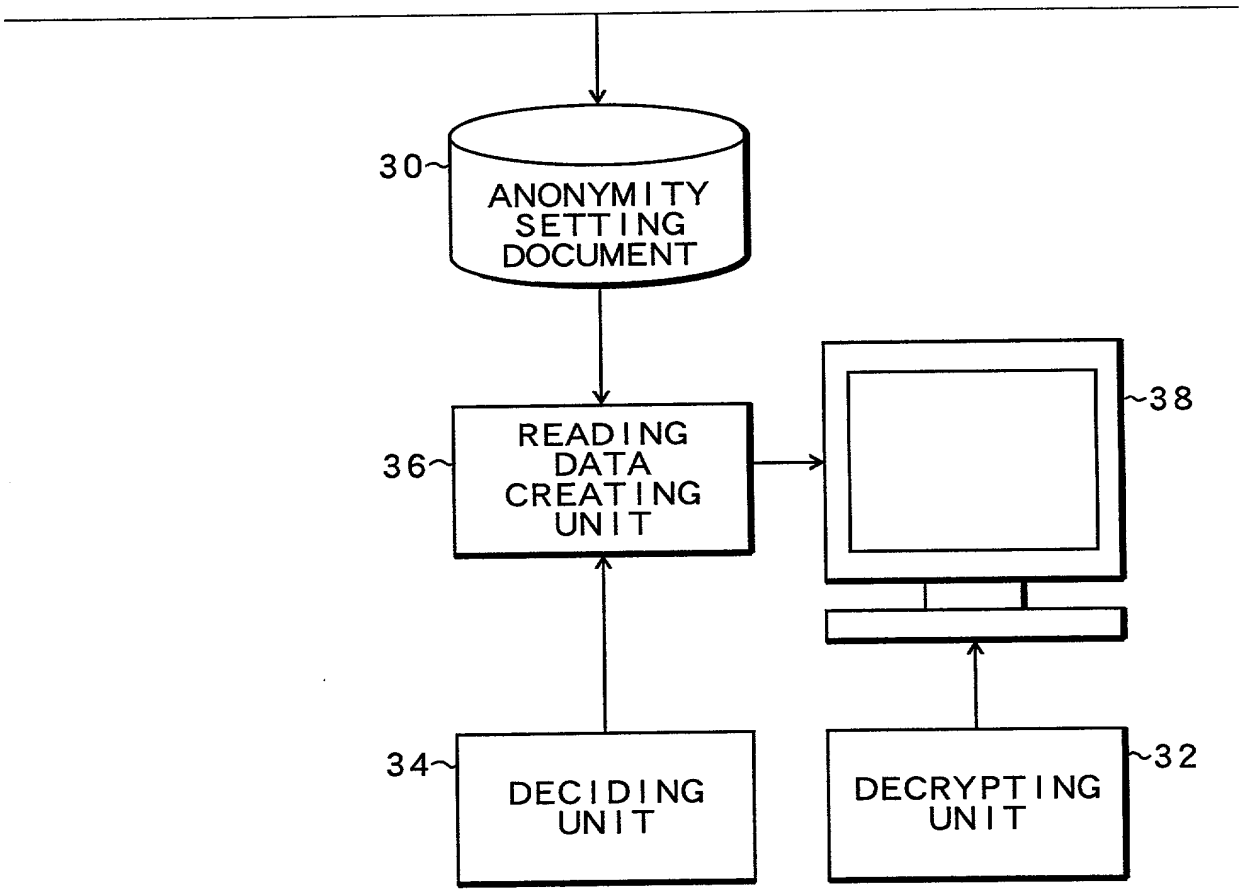

30
ANONYMITY SETTING DOCUMENT
36
READING DATA CREATING UNIT
38
34
DECIDING UNIT
DECRYPTING UNIT
32

FIG. 2

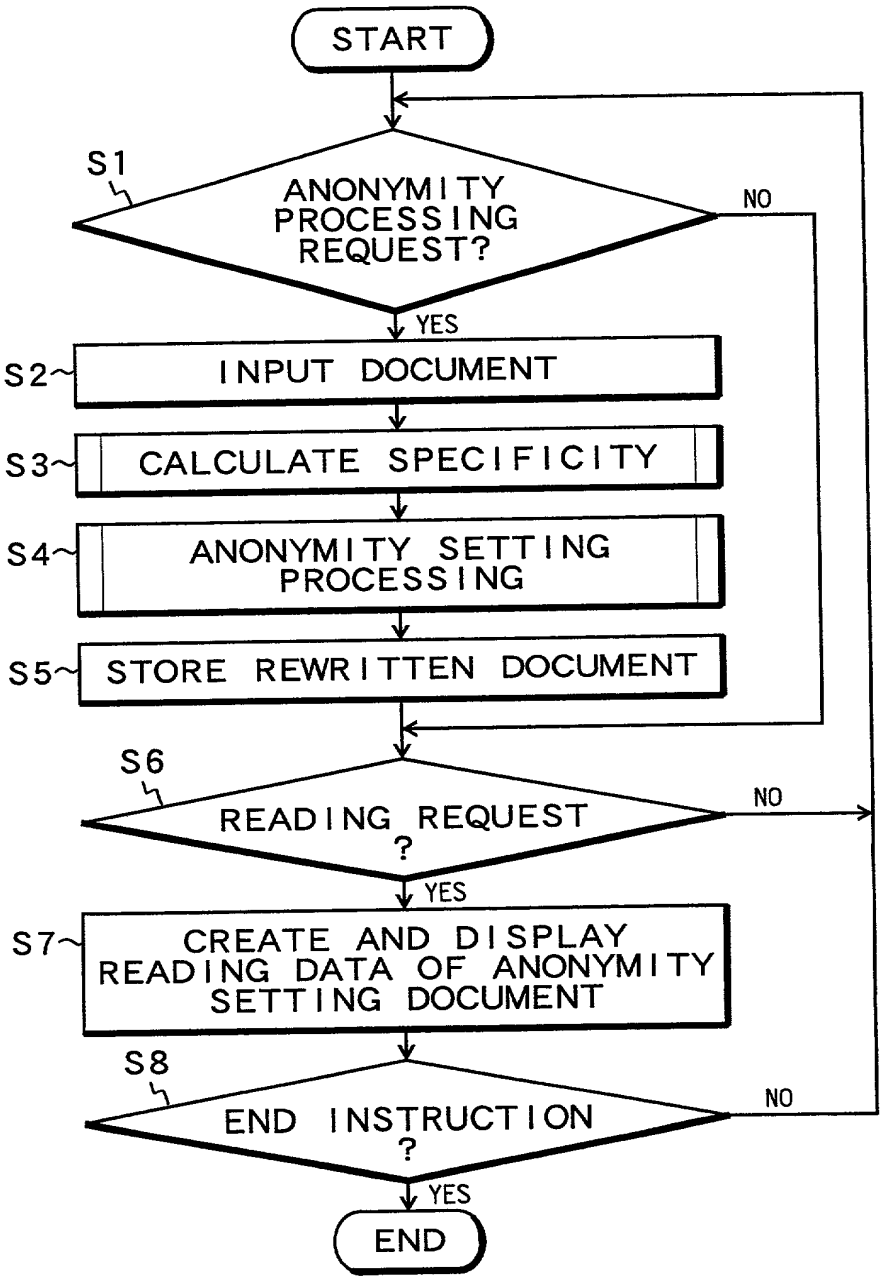

START
S1
ANONYMITY PROCESSING REQUEST?
NO
YES
S2
INPUT DOCUMENT
S3
CALCULATE SPECIFICITY
S4
ANONYMITY SETTING PROCESSING
S5
STORE REWRITTEN DOCUMENT
S6
READING REQUEST ?
NO
YES
S7
CREATE AND DISPLAY READING DATA OF ANONYMITY SETTING DOCUMENT
S8
END INSTRUCTION ?
NO
YES
END

FIG. 3

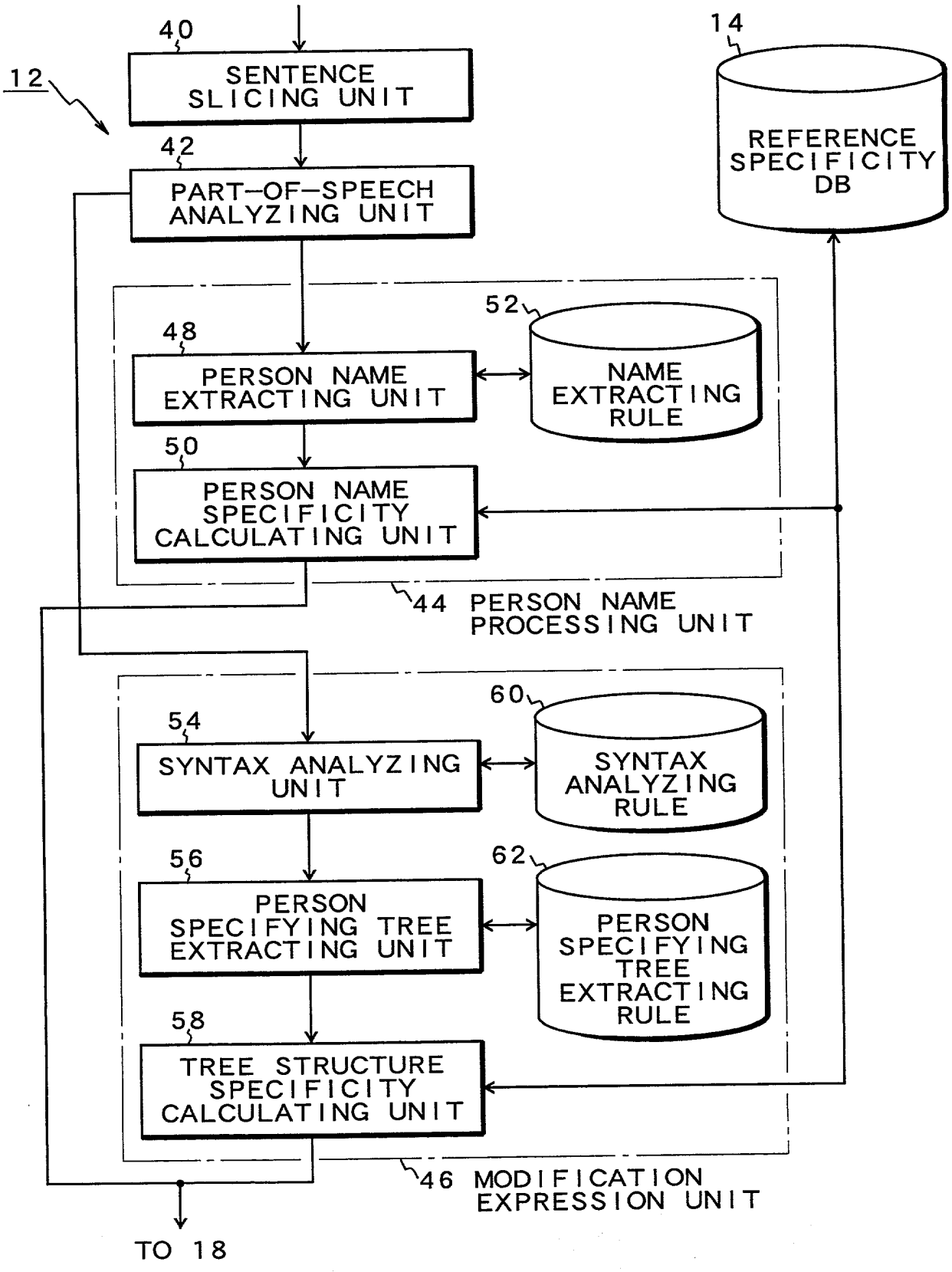

12
40
SENTENCE SLICING UNIT
42
PART-OF-SPEECH ANALYZING UNIT
14
REFERENCE SPECIFICITY DB
52
48
PERSON NAME EXTRACTING UNIT
NAME EXTRACTING RULE
50
PERSON NAME SPECIFICITY CALCULATING UNIT
44 PERSON NAME PROCESSING UNIT
60
54
SYNTAX ANALYZING UNIT
SYNTAX ANALYZING RULE
56
62
PERSON SPECIFYING TREE EXTRACTING UNIT
PERSON SPECIFYING TREE EXTRACTING RULE
58
TREE STRUCTURE SPECIFICITY CALCULATING UNIT
46 MODIFICATION EXPRESSION UNIT
TO 18

FIG. 4

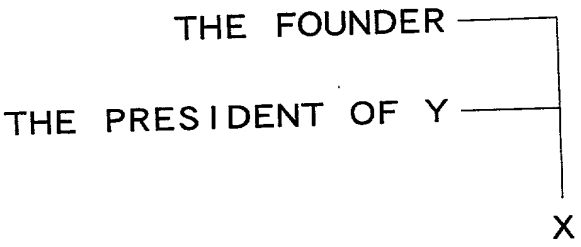

THE FOUNDER
THE PRESIDENT OF Y
X

FIG. 5

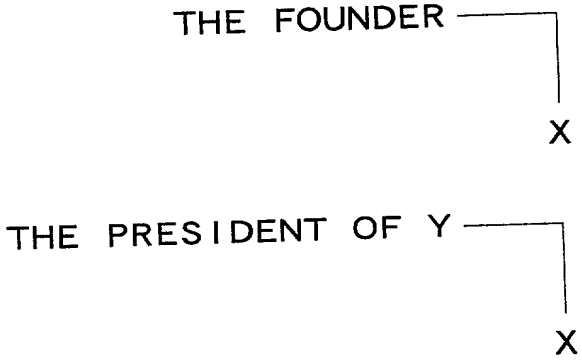

THE FOUNDER
X
THE PRESIDENT OF Y
X

FIG. 6

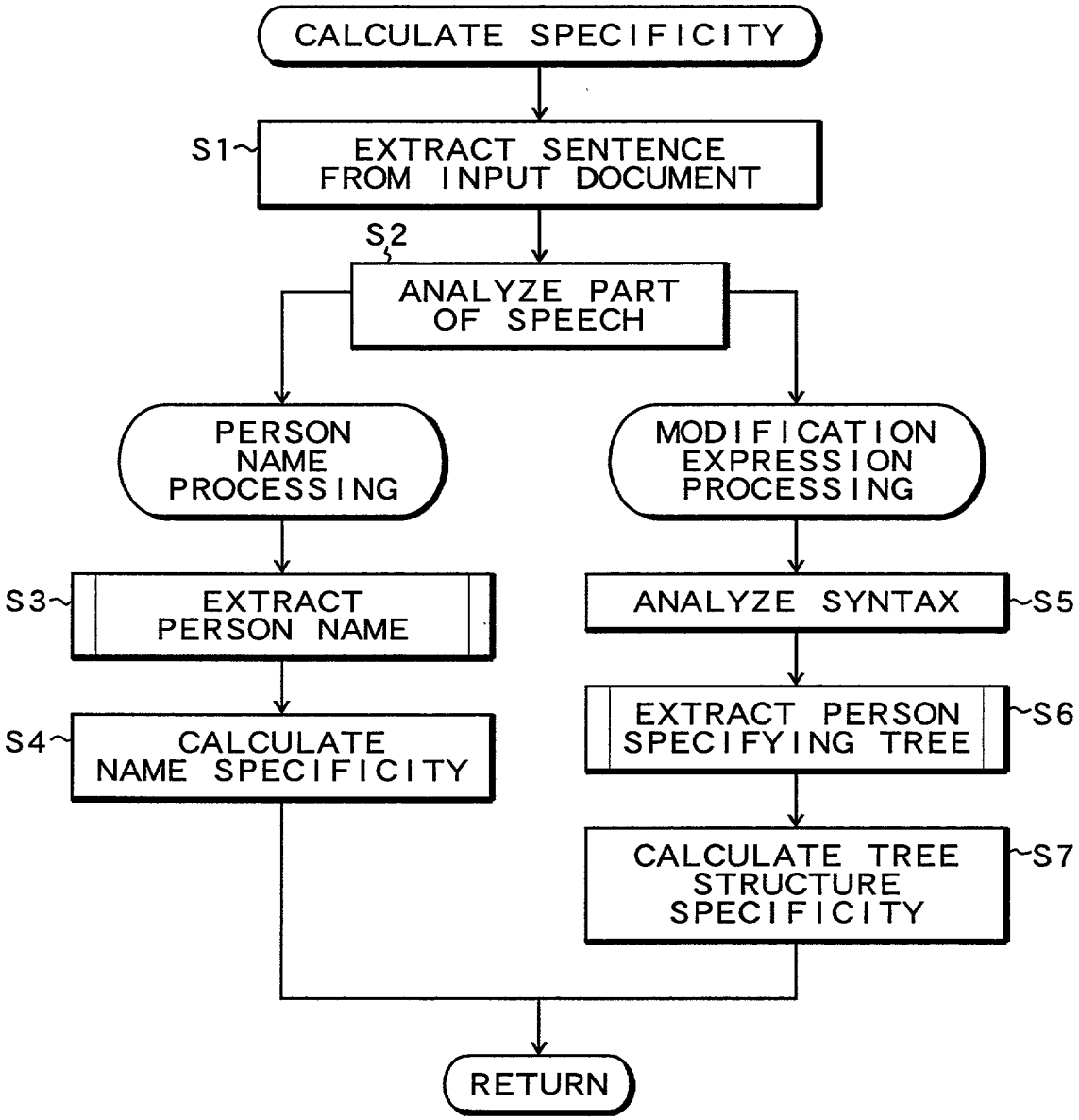

CALCULATE SPECIFICITY
S1
EXTRACT SENTENCE FROM INPUT DOCUMENT
S2
ANALYZE PART OF SPEECH
PERSON NAME PROCESSING
MODIFICATION EXPRESSION PROCESSING
S3
EXTRACT PERSON NAME
S4
CALCULATE NAME SPECIFICITY
ANALYZE SYNTAX
S5
EXTRACT PERSON SPECIFYING TREE
S6
CALCULATE TREE STRUCTURE SPECIFICITY
S7
RETURN

FIG. 7

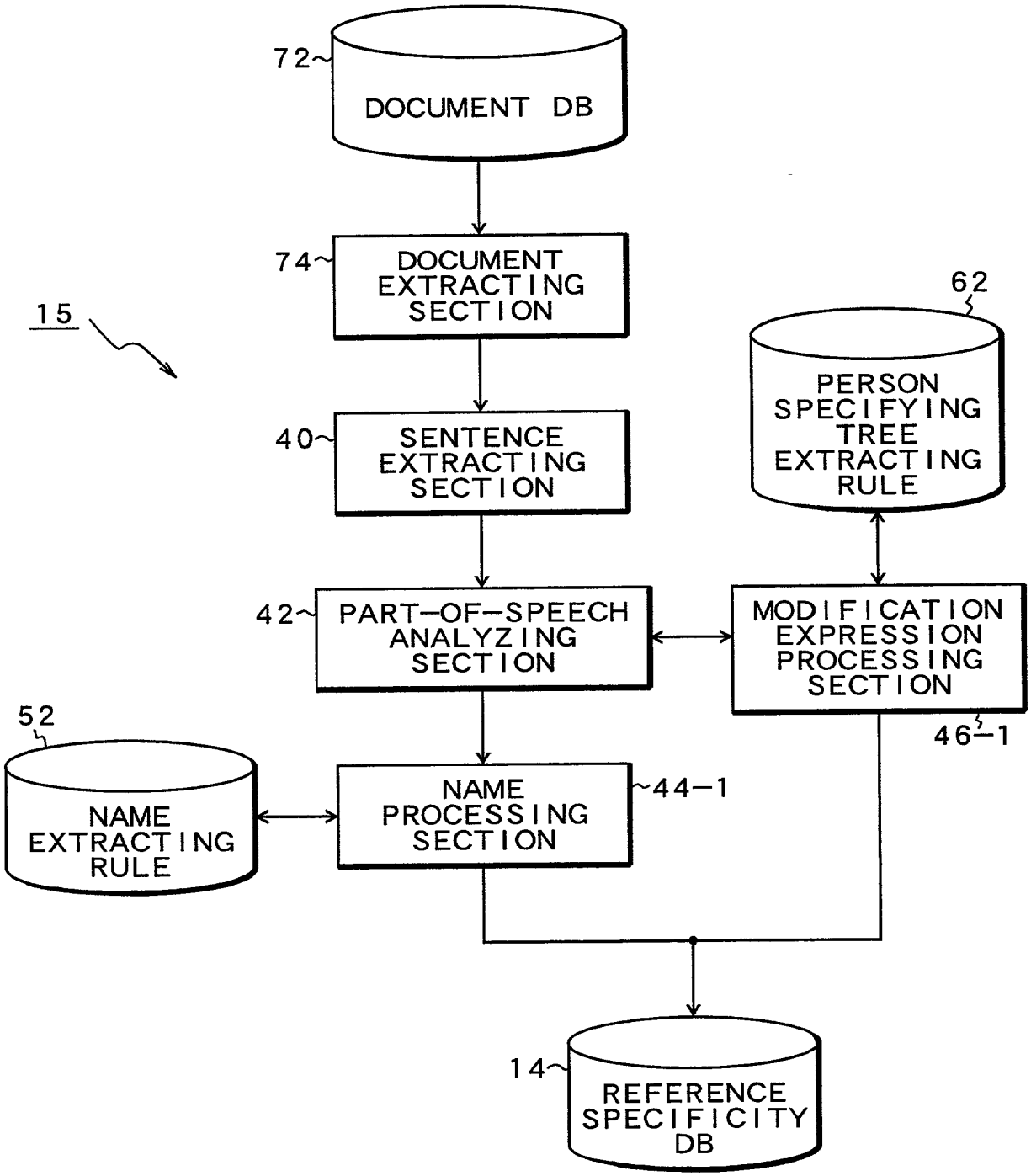

72
DOCUMENT DB
74
DOCUMENT EXTRACTING SECTION
15
40
SENTENCE EXTRACTING SECTION
62
PERSON SPECIFYING TREE EXTRACTING RULE
42
PART-OF-SPEECH ANALYZING SECTION
MODIFICATION EXPRESSION PROCESSING SECTION
46-1
52
NAME EXTRACTING RULE
NAME PROCESSING SECTION
44-1
14
REFERENCE SPECIFICITY DB

FIG. 8

14

PERSON IDENTIFICATION ID	TYPE OF NOTATION	NOTATION	PROBABILITY
P001	NAME	JOHN	0.3
P001	NAME	JOHN SMITH	0.9
P001	MODIFICATION	j_smith@a.company.com	1.0
P001	MODIFICATION	IN INFORMATION APPARATUS SALES DIVISION	0.2
....	....	....	....
P003	NAME	SMITH	0.2
P003	MODIFICATION	SOHKA CITY, SAITAMA PREFECTURE	0.6
....	....	....	....
P009	MODIFICATION	SOHKA CITY, SAITAMA PREFECTURE	0.6
....	....	....	....

FIG. 9

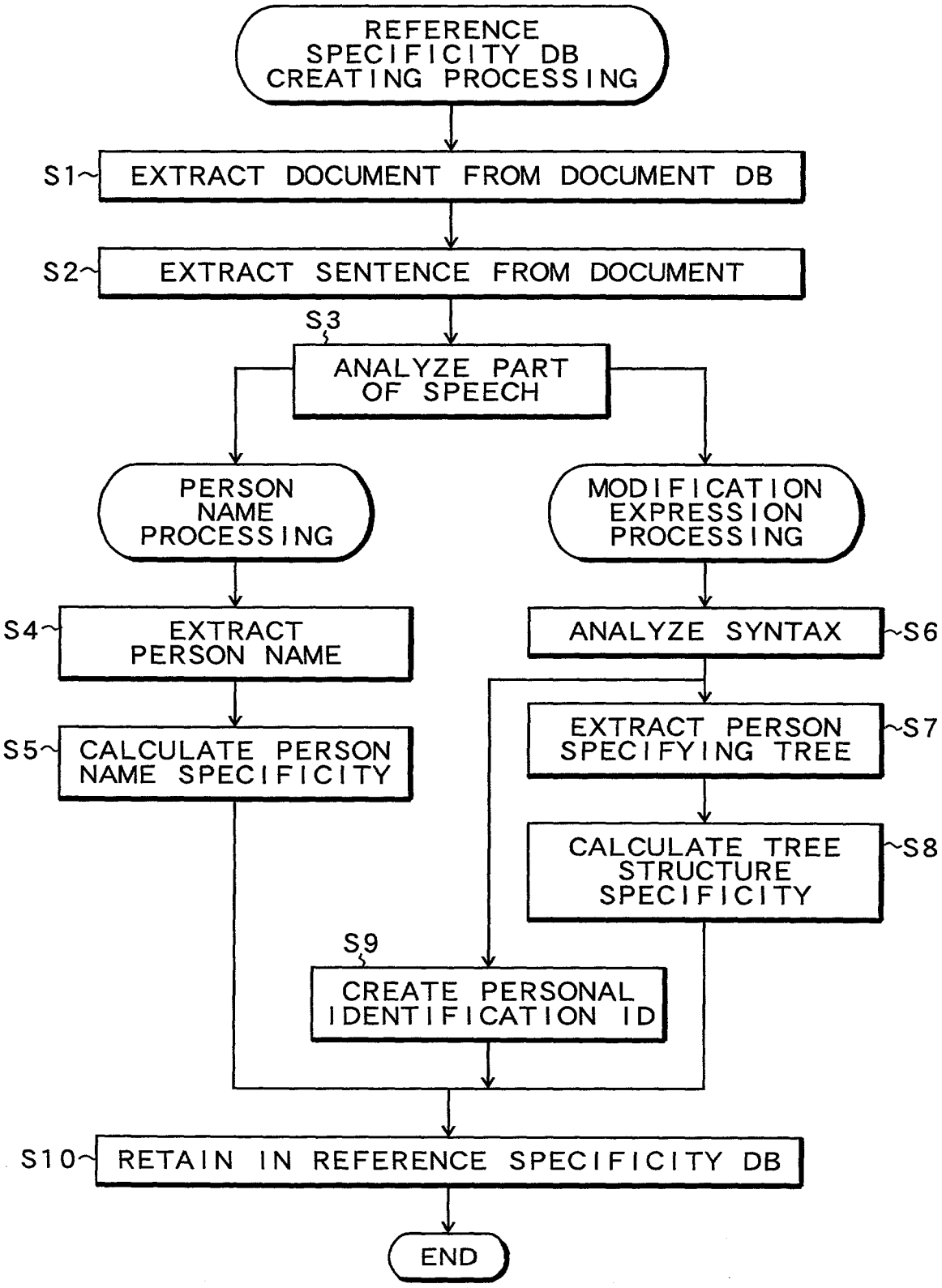

REFERENCE SPECIFICITY DB CREATING PROCESSING
S1
EXTRACT DOCUMENT FROM DOCUMENT DB
S2
EXTRACT SENTENCE FROM DOCUMENT
S3
ANALYZE PART OF SPEECH
PERSON NAME PROCESSING
MODIFICATION EXPRESSION PROCESSING
S4
EXTRACT PERSON NAME
S5
CALCULATE PERSON NAME SPECIFICITY
ANALYZE SYNTAX
S6
EXTRACT PERSON SPECIFYING TREE
S7
CALCULATE TREE STRUCTURE SPECIFICITY
S8
S9
CREATE PERSONAL IDENTIFICATION ID
S10
RETAIN IN REFERENCE SPECIFICITY DB
END

FIG. 10

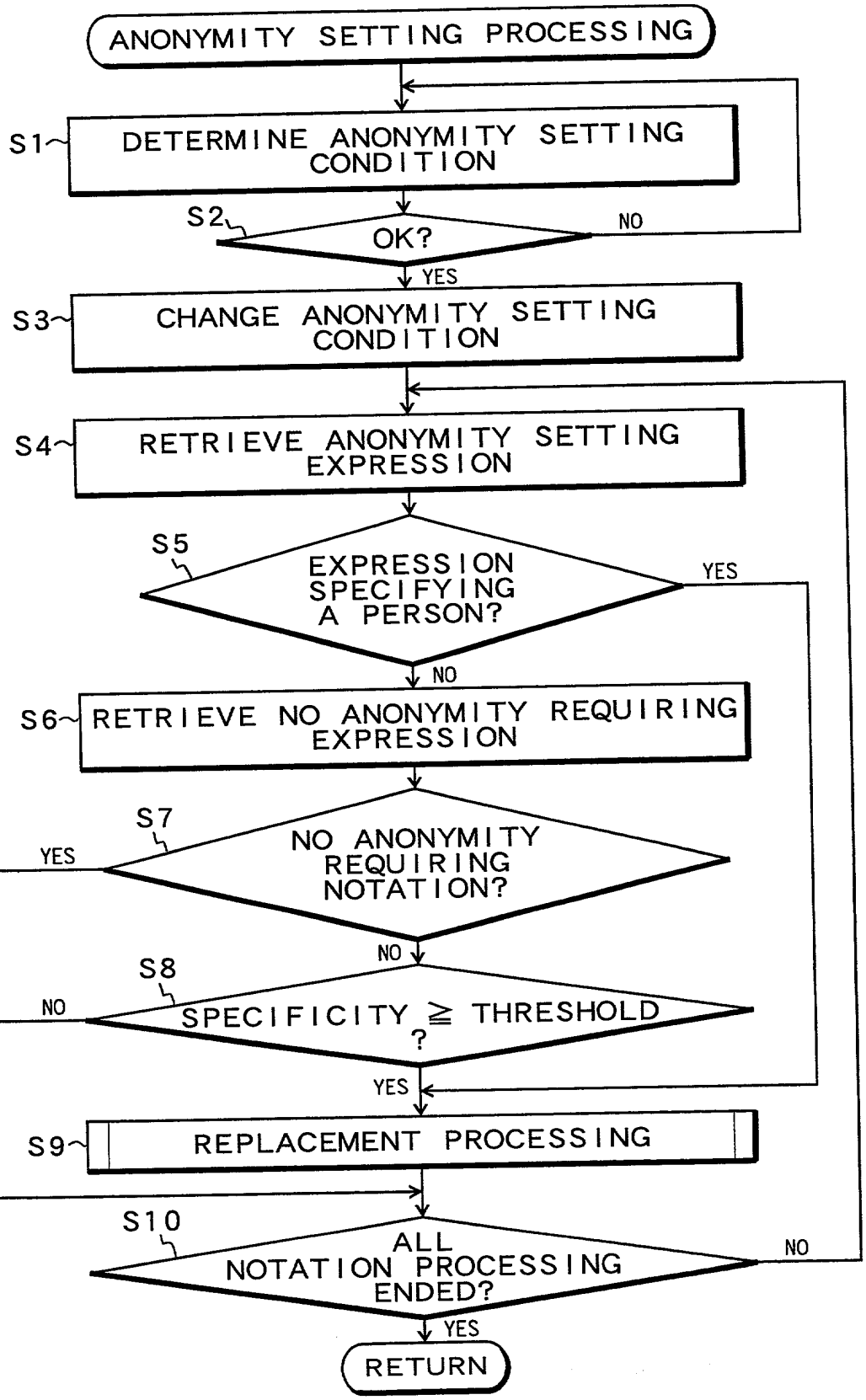

ANONYMITY SETTING PROCESSING
S1
DETERMINE ANONYMITY SETTING CONDITION
S2
OK?
NO
YES
S3
CHANGE ANONYMITY SETTING CONDITION
S4
RETRIEVE ANONYMITY SETTING EXPRESSION
S5
EXPRESSION SPECIFYING A PERSON?
YES
NO
S6
RETRIEVE NO ANONYMITY REQUIRING EXPRESSION
S7
NO ANONYMITY REQUIRING NOTATION?
YES
NO
S8
SPECIFICITY ≧ THRESHOLD ?
NO
YES
S9
REPLACEMENT PROCESSING
S10
ALL NOTATION PROCESSING ENDED?
NO
YES
RETURN

FIG. 11

26

IDENTIFICATION	THRESHOLD	ANONYMITY SETTING METHOD
00	LAST THRESHOLD	TURNED LETTER
01	TH1	GENERALIZATION
02	TH2	GENERALIZATION
03	TH3	LOW SPECIFICITY
04	TH4	ENCODE
⋮	⋮	⋮
n	THn	TURNED LETTER

FIG. 12A

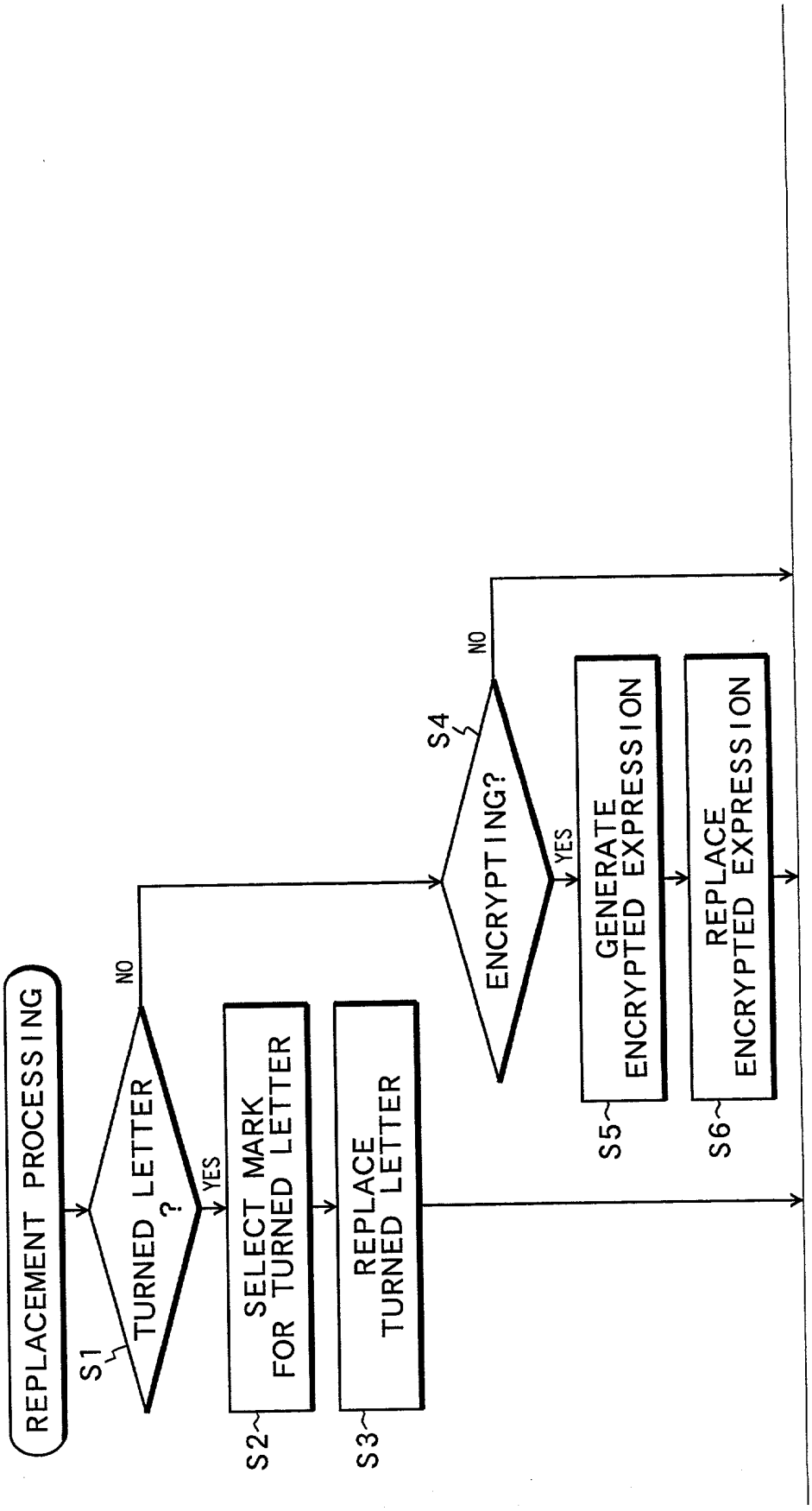

REPLACEMENT PROCESSING
S1
TURNED LETTER ?
NO
YES
S2
SELECT MARK FOR TURNED LETTER
S3
REPLACE TURNED LETTER
S4
ENCRYPTING?
NO
YES
S5
GENERATE ENCRYPTED EXPRESSION
S6
REPLACE ENCRYPTED EXPRESSION

FIG.12B

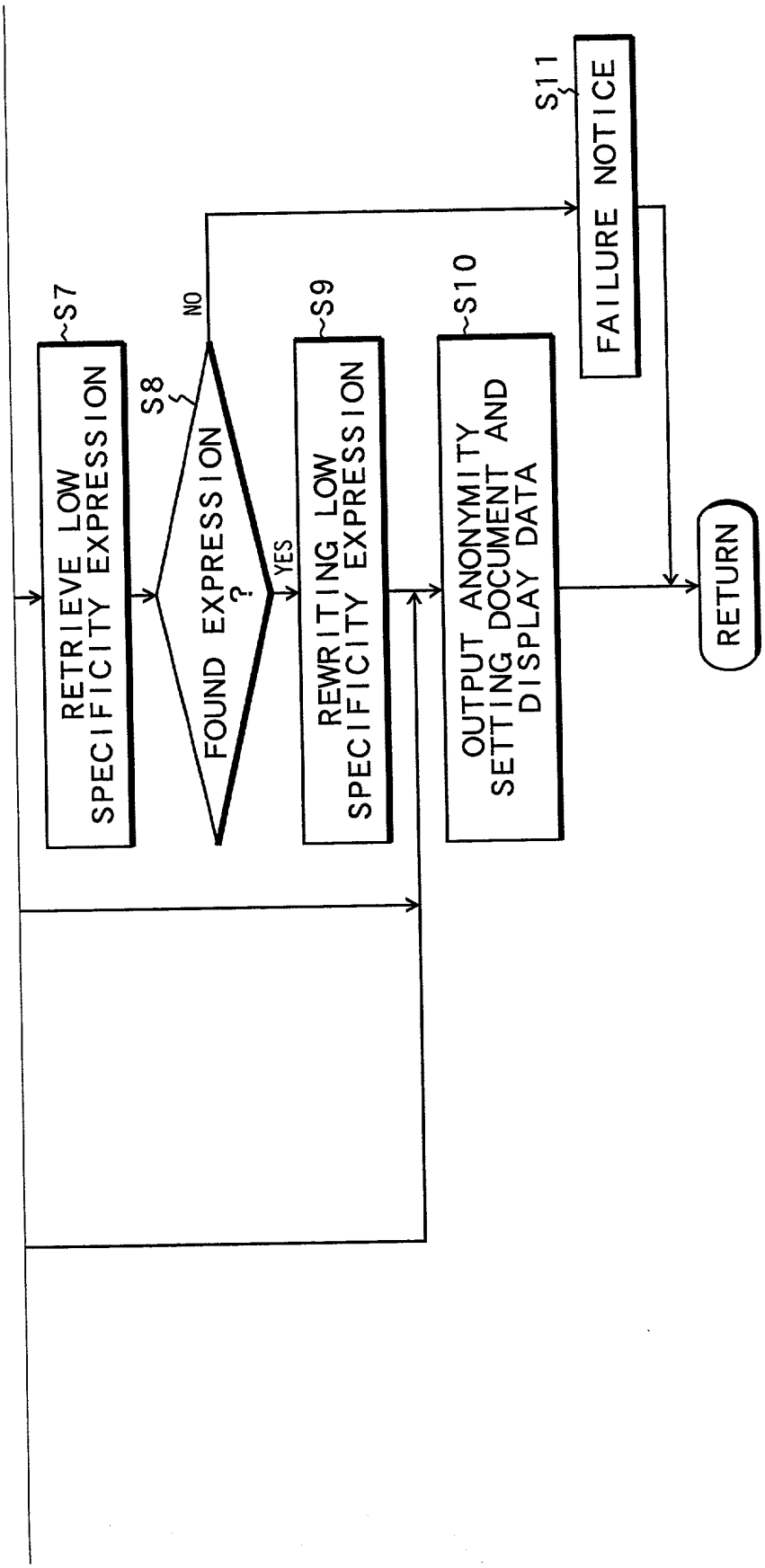

RETRIEVE LOW SPECIFICITY EXPRESSION
S7
FOUND EXPRESSION ?
S8
NO
YES
REWRITING LOW SPECIFICITY EXPRESSION
S9
OUTPUT ANONYMITY SETTING DOCUMENT AND DISPLAY DATA
S10
FAILURE NOTICE
S11
RETURN

FIG. 13

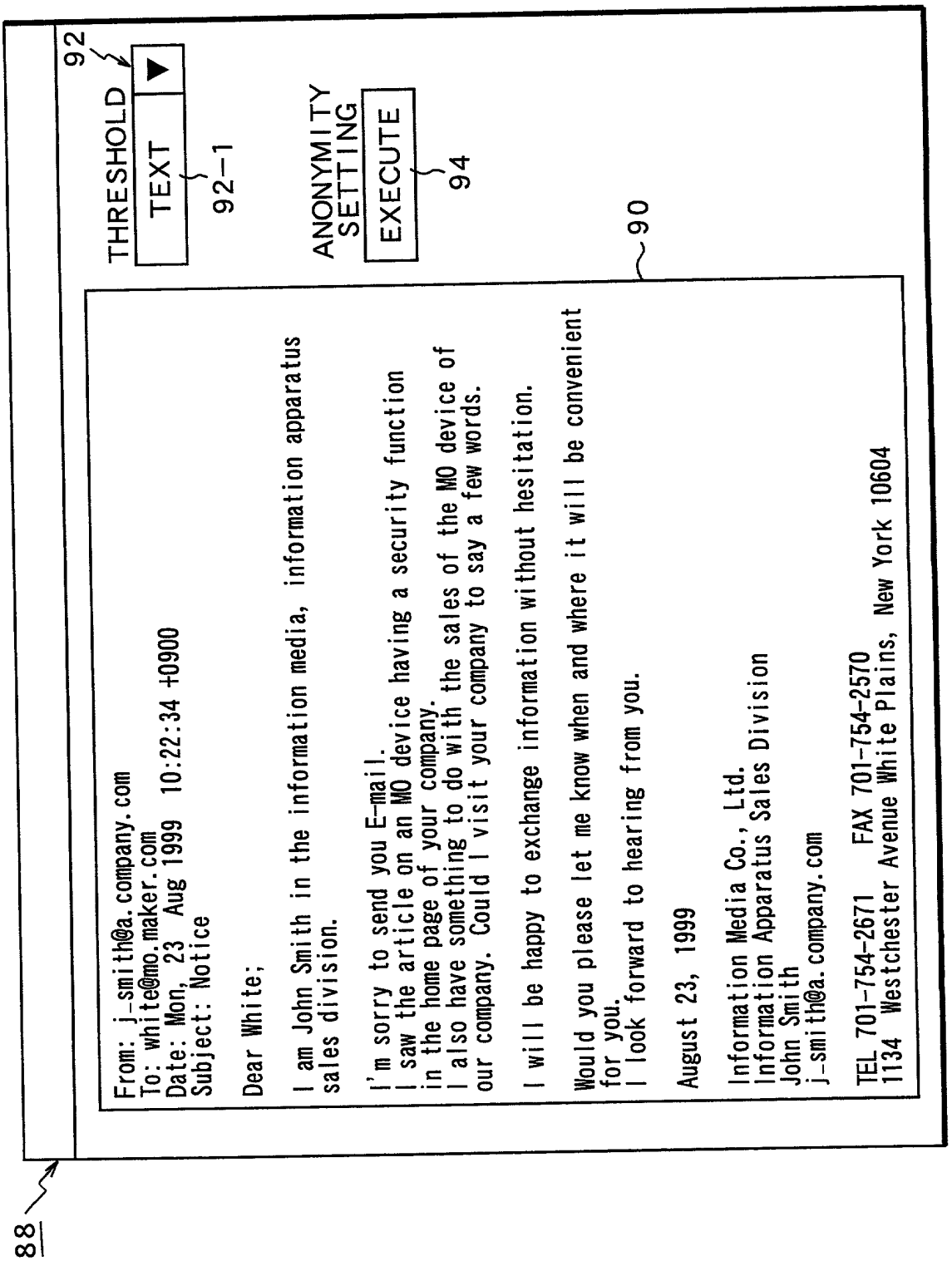

88
92
THRESHOLD
TEXT
92-1
ANONYMITY SETTING
EXECUTE
94
90
From: j_smith@a.company.com
To: white@mo.maker.com
Date: Mon, 23 Aug 1999 10:22:34 +0900
Subject: Notice
Dear White;
I am John Smith in the information media, information apparatus sales division.
I'm sorry to send you E-mail.
I saw the article on an MO device having a security function in the home page of your company.
I also have something to do with the sales of the MO device of our company. Could I visit your company to say a few words.
I will be happy to exchange information without hesitation.
Would you please let me know when and where it will be convenient for you.
I look forward to hearing from you.
August 23, 1999
Information Media Co., Ltd.
Information Apparatus Sales Division
John Smith
j_smith@a.company.com
TEL 701-754-2671 FAX 701-754-2570
1134 Westchester Avenue White Plains, New York 10604

FIG. 14

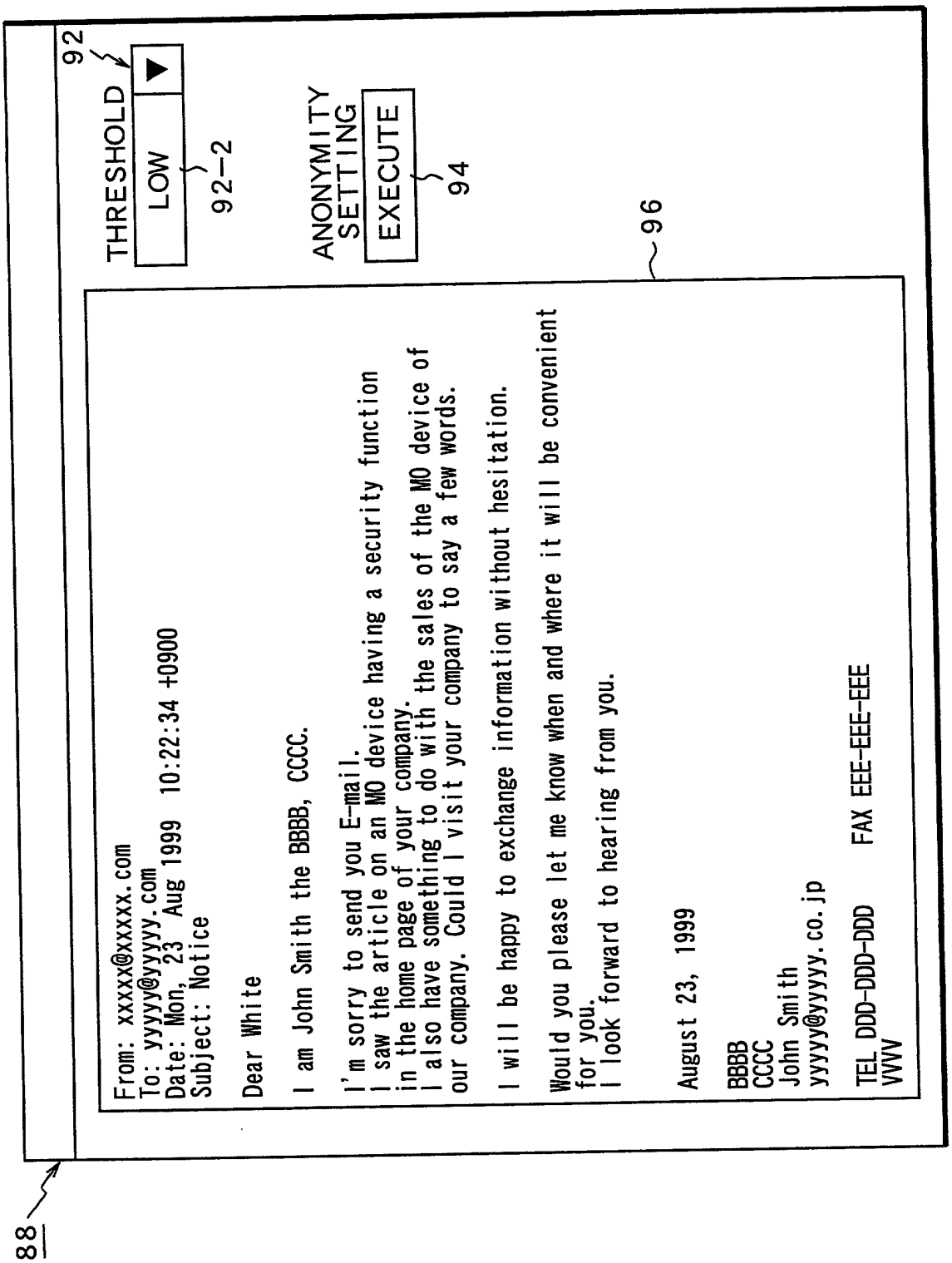
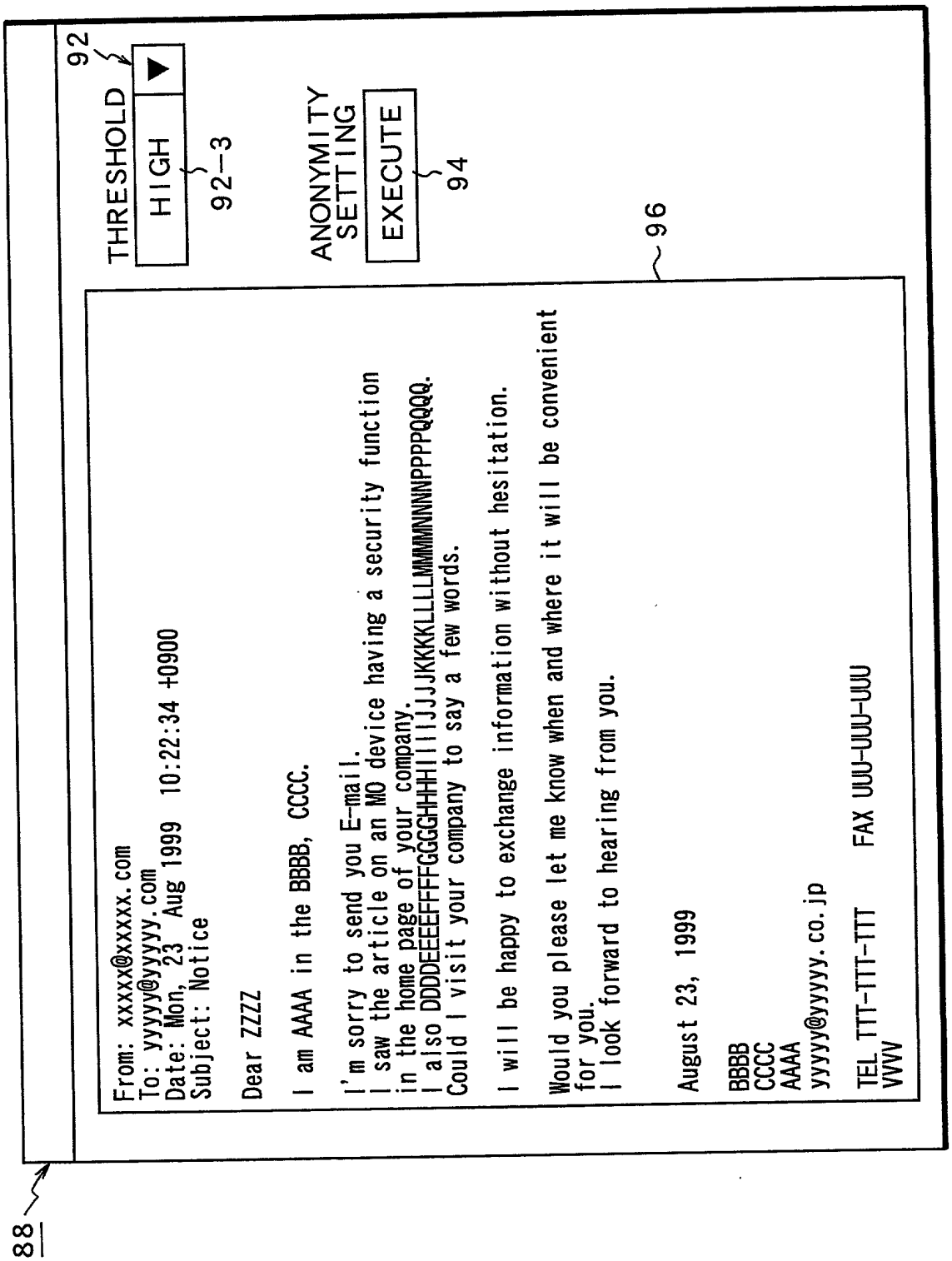

88
92
THRESHOLD
LOW
92-2
ANONYMITY SETTING
EXECUTE
94
96
From: xxxxx@xxxxx.com
To: yyyyy@yyyyy.com
Date: Mon, 23 Aug 1999 10:22:34 +0900
Subject: Notice
Dear White
I am John Smith the BBBB, CCCC.
I'm sorry to send you E-mail.
I saw the article on an MO device having a security function in the home page of your company.
I also have something to do with the sales of the MO device of our company. Could I visit your company to say a few words.
I will be happy to exchange information without hesitation.
Would you please let me know when and where it will be convenient for you.
I look forward to hearing from you.
August 23, 1999
BBBB
CCCC
John Smith
yyyyy@yyyyy.co.jp
TEL DDD-DDD-DDD FAX EEE-EEE-EEE
VVV

FIG. 15


88
92
THRESHOLD
HIGH
92-3
ANONYMITY SETTING
EXECUTE
94
96
From: xxxxx@xxxxx.com
To: yyyyy@yyyyy.com
Date: Mon, 23 Aug 1999 10:22:34 +0900
Subject: Notice
Dear ZZZZ
I am AAAA in the BBBB, CCCC.
I'm sorry to send you E-mail.
I saw the article on an MO device having a security function in the home page of your company.
I also DDDDEEEEFFFFGGGGHHHHIIIIJJJJKKKKLLLLLMMMMNNNNPPPPQQQQ.
Could I visit your company to say a few words.
I will be happy to exchange information without hesitation.
Would you please let me know when and where it will be convenient for you.
I look forward to hearing from you.
August 23, 1999
BBBB
CCCC
AAAA
yyyyy@yyyyy.co.jp
TEL TTT-TTT-TTT FAX UUU-UUU-UUU
VVVV